Technology Issue
Laptop Vs. Smartphone: Which One Do Students Prefer For Online Learning?

Yoani Gustanti
English Education

yoanigustanti@gmail.com

Abstract

The development of technology affects all aspects of our lives, including education. Assignments these days are no longer paper-based tasks as they used to be. These jobs are now web-based. With the development of university materials, students need to continuously connect to the Internet to complete their homework. If they have a laptop or smart phone, their difficult task will become easier. As a portable device, they can connect to the Internet using a wireless connection. There is also a specific subject that requires their students to also use portable device. This means that to complete the task, the only thing to do is to own a laptop or a smartphone.

Key words: Technology, Laptop, Smartphone, Online learning

INTRODUCTION

In today's society, mobile devices have been widely used in all aspects of daily life at home, leisure, study and work (Anisa Martadala et al., 2021; Nani et al., 2021; Sari & Oktaviani, 2021). These devices are found in an increasingly wide range of computer hardware types, including smartphones and laptops (Ahdan et al., 2019; Alita et al., 2020; A Budiman et al., 2021). A laptop or laptop computer is a small portable personal computer (PC) with a "flip" shape, usually with a thin LCD or LED computer screen inside the flip top cover, and an alphanumeric keyboard cover on the inside of the lower part (Sulistiani et al., 2021; Susanto et al., 2022; Suwarni & Handayani, 2021). Open the flip to use the computer. The laptop is folded for easy transportation, so it is suitable for mobile use (Choirunnisa & Mandasari, 2021; Puspita et al., 2021; Setiawan et al., 2021). Its name comes from the thigh because it is believed to be placed on the thigh of a person when it is used. Although initially there was a difference between laptops and laptop computer (the former was larger and heavier than the latter), as of 2014, there is usually no longer any difference (Lestari et al., 2021; Megawaty et al., 2021; Tinambunan & Sintaro, 2021).

The portable computer combines all the input/output components and functions of the desktop computer (including the display screen, small speakers, keyboard, data storage device (sometimes optical drive), pointing device (such as touch pad or touch pad)) with the operation panel (Aldino, Pratiwi, et al., 2021; Arpin, 2020; Putri et al., 2021). Together the system combines the processor and memory into one unit. Most modern laptops are equipped with an integrated webcam and built-in microphone, and many laptops also have a touch screen (Adi et al., 2020; Fahrizqi et al., 2021; Sulistiani et al., 2020). The notebook computer can be powered by a built-in battery or an external power source from an AC adapter. Hardware specifications (such as processor speed and memory capacity) vary greatly between different types, models, and price points (Borman et al., 2020; Rossi, 2021; Tanthowi, 2021).

Design elements, form factor and construction can also vary significantly between models depending on intended use (Aminatun et al., 2021; Mindayani et al., 2021; Yasin et al., 2022). Examples of specialized models of laptops include rugged notebooks for use in construction or military applications, as well as low production cost laptops such as those from the One Laptop per Child (OLPC) organization, which incorporate features like solar charging and semi-flexible components not found on most laptop computers (Aldino, Hendra, et al., 2021; Damayanti et al., 2021; Khan & Kainth, 2019). Portable computers, which later developed into modern laptops, were originally considered to be a small niche market, mostly for specialized field applications, such as in the military, for accountants, or for traveling sales representatives (Lina & Permatasari, 2020; Nabila et al., 2021; Rusliyawati et al., 2020). As the portable computers evolved into the modern laptop, they became widely used for a variety of purposes.

LITERATURE REVIEW

A smartphone is a mobile device that combines cellular and mobile computing functions into one unit (Ahmad et al., 2022; Gunawan D, 2020; Hendrastuty et al., 2021). They are distinguished from feature phones by their stronger hardware capabilities and extensive mobile operating systems, which facilitate wider software, internet (including web browsing over mobile broadband), and multimedia functionality (including music, video, cameras, and gaming), alongside core phone functions such as voice calls and text messaging. Smartphones typically contain a number of metal–oxide–semiconductor (MOS) integrated circuit (IC) chips, include various sensors that can be leveraged by their software (such as a magnetometer, proximity sensors, barometer, gyroscope, or accelerometer), and support wireless communications protocols (such as Bluetooth, Wi-Fi, or satellite navigation) (Juliarti et al., 2021; Pratiwi et al., 2020; Risten & Pustika, 2021).

Early smartphones were marketed primarily towards the enterprise market, attempting to bridge the functionality of standalone personal digital assistant (PDA) devices with support for cellular telephony, but were limited by their bulky form, short battery life, slow analog cellular networks, and the immaturity of wireless data services. These issues were eventually resolved with the exponential scaling and miniaturization of MOS transistors down to sub-micron levels, the improved lithium-ion battery, faster digital mobile data networks and more mature software platforms that allowed mobile device ecosystems to develop independently of data providers (Karnawan et al., 2020; Nurkholis et al., 2021; Sari, 2020).

In the 2000s, NTT DoCoMo's i-mode platform, BlackBerry, Nokia's Symbian platform, and Windows Mobile began to gain market traction, with models often featuring QWERTY keyboards or resistive touchscreen input, and emphasizing access to push email and wireless internet. Following the rising popularity of the iPhone in the late 2000s, the majority of smartphones have featured thin, slate-like form factors, with large, capacitive screens with support for multi-touch gestures rather than physical keyboards, and offer the ability for users to download or purchase additional applications from a centralized store, and use cloud storage and synchronization, virtual assistants, as well as mobile payment services. Smartphones have largely replaced PDAs and handheld/palm-sized PCs (Abdussamad, 2020; Nur, 2021; Yunitasari & Sintaro, 2021).

Improved hardware and faster wireless communication (due to standards such as LTE) have bolstered the growth of the smartphone industry. In the third quarter of 2012, one billion smartphones were in use worldwide. Global smartphone sales surpassed the sales figures for feature phones in early 2013 (Dan, 2021; Fauzi et al., 2020; Samsugi et al., 2021).

These mobile devices are now regarded as essential learning tools (Arief Budiman et al., 2021; Jayadi et al., 2021; Ramadhanu & Priandika, 2021). It is therefore unsurprising to see them proliferate in the higher education student population. At universities, 87% of students own laptops, more than half have a Smartphone, and 8% own an iPad .

METHOD

This research was a descriptive qualitative one, trying to find out university students' preference between Laptop and Smartphone in doing online learning with the subject of the research, students of English ecucation'18 taking Academic Writing class at Universitas Teknokrat Indonesia. The research was conducted in December 2020. Data collection was carried out using a questionnaire created with Google form to find out whether laptops or smart phones students prefer to use for online learning.

RESULTS AND DISCUSSION

The result of this Google form-based questionnaire which was distributed is presented in the following table. Before analyzing this table, it is worth mentioning here that as far as questions 1 and 2 are concerned, the participants in the survey were allowed to select from the list of choices provided in each of these questions all the choices that are applicable to them. The same thing applies to questions 3, 4, 5, 6 and 7 but they can add some more opinions.

No.	Question	Answers	Percentages
1.	Do you have both laptop and Smartphone?	Yes	95.2%
		No	4.8%

The analysis of question 1 indicates that (95.2%) of participants have both laptop and smartphone and the other (4.8%) only had one of those mobile devices. This percentage shows that almost all participants have both laptop and Smartphone.

No.	Question	Answers	Percentages
2.	Which one do you use most when doing online learning?	Laptop	52.4%
		Smart phone	47.6%

In question 2 about which one of those two mobile devices they use most when doing online learning, 52.4% of them use laptop more often than smartphone, and the rest of participants (47.6%) chose the opposite, they use smartphone more often than laptop for online learning. the reasons can be find in answers from questions 3 to7.

No.	Question	Answers		Percentages
3.	In terms of screen size, which one do you prefer?	Laptop		71.4%
		The reason?	-Bigger -More satisfied -Because the screen is bigger so that the images and writing are clearer -Because they are more clearly legible -The screen is wide so it is suitable for doing tasks that need to be used in office	

			applications because of the office features in a laptop is more complete than an office on a Smartphone besides a wide user interface, which is good if you want to edit a file or document. -It is clearer to see -Because it is easier when doing assignments -Online lectures often use the zoom application media, so I prefer it. use a laptop because it is clearer in paying attention to the material described by the lecturer -Easier to use when studying, does not interfere with vision -Because it is easier to do, especially if working on an article because we find it easier to use MS Word with more complete features -Using laptop is more convenient for me because I can open more than apps and tabs at once. The screen is also bigger so it helps me to read better. -Because the laptop screen is wider, so writing or any other display is clearer. -Because it's easier and clearer to use -Because more clearly the image or writing -It's easier to learn to use a laptop because there are no obstacles when you want to study online, just like it, it's bigger so the eyes don't get tired of seeing the small writing -Because the screen is large so zoom can be clear read Power Point -Because, first the writing looks clearer, the second can adjust the screen display according to what we want by scrolling, third in my opinion the network is more stable when using a laptop
		Smart phone	38.6%
		The reason?	-Because Smartphone is easier to carry and efficient -Simple - more flexible - Because it is more flexible to carry anywhere - Efficient and easy to carry anywhere

As question 3 demonstrates, 71.4% of participants chose Laptop in term of screen size. This is because the screen size of a laptop is larger than a smartphone. In this way, images and text are more clearly visible, and the eyes will not feel tired from seeing small text. The rest of the participants (38.6%) chose smartphone in term of screen size. It is because smartphones are smaller, more flexible, and can be carried around. These percentages indicate that in terms of screen size, most participants prefer laptops to smartphones. In fact, the screen of a smart phone will vary by manufacturer and model. However, they are usually smaller than desktop or laptop computers because their size is usually between 4 and 7 inches.

No.	Question	Answers		Percentages
4.	In terms of battery power, which one do you prefer?	Laptop		76.2%
		The reason?	- Because laptop batteries tend to be more efficient than Smartphone -Doesn't run out quickly -Because laptop battery life is more durable than Smartphone. -My Smartphone battery is easily drained out, so I choose laptop because I can use it for a longer time. -More durable for the learning process -The laptop battery is bigger	
		Smart phone		23.8%
		The reason?	-Because laptop's my battery is damaged -According to my laptop is more wasteful batteries when used heavy applications such as zoom - Because my Smartphone can last up to 24 hours even though it is used for online learning and other things - Because the battery on a Smartphone is more durable than a laptop - The laptop that I use has a problem so the choice using a Smartphone -Because Smartphone batteries last longer than Smartphone, they are more efficient than laptops	

In question 4, when asked which one they prefer in term of battery power, 76% of them chose laptop because laptop battery life is more durable than Smartphone, and the rest (23.8%) chose smartphone, based on their opinion it is because their laptop's battery is damaged or more wasteful batteries when used heavy applications. The others said if their smartphone more durable than a laptop. This percentage show that most participants chose laptops from the perspective of battery power, but in reality, these opinions depend on the state of their mobile devices. In fact, the energy capacity of laptop batteries is much higher than that of mobile phones.

No.	Question	Answers	Percentages

No.	Question	Answers		Percentages
5.	In terms of storage, which one do you prefer?	Laptop		95.2%
		The reason?	-Smartphone has less storage space -It is not easily full -the storage is more large on a laptop than a Smartphone -It's easier to store and can be stored in a safe and secure place and very simple -Because laptop memory can store a lot of data. -It's safer -Because Smartphone storage is smaller so it's often full, so laptops are the solution to store all data. -More storage space capacity -It is safer to store documents in the form of -Laptops RAM capacity bigger -Power savings in a laptop the larger more substantial in terms of RAM and storage -I think it is easier to save on the laptop because it's easier to make a list of files -In terms of storage I prefer a laptop because it is bigger than a Smartphone. -Bigger storage Laptops have storage sizes so it's worth it to store small files until monsters like files, applications, games, videos & movies (Hollywood, Bollywood, Telenovela, Live) action, anime, cartoon, animation, etc.) can all be included as long as there is enough space.	
		Smart phone		4.8%
		The reason?		

In terms of storage, 95.2% of the participants chose laptops because they have more storage space, so they can store a lot of files. The rest (4.8%) chose smartphones, but no participants told why. This percentage shows that in terms of storage, almost all participants chose laptops. Today, even the most basic computer has 250 GB of storage space, and most smartphones have 16 GB to 128 GB of built-in storage space.

No.	Question	Answers		Percentages
6.	In terms of software, which one do you prefer?	Laptop		54.8%
		The reason?	-More complete -More diverse -I prefer laptops because they have more advantages in performance -This is a difficult choice because I can	

		say two "it has a really cool and good application because both Windows and Android have a lot of it. Application developers who provide applications that are cool, useful and most importantly, many are free, I can say the main point of the comparison of the two software's is a laptop has complete features while the Android software has applications that are efficient, practical and easy to use. -More safe for storing various files -Laptop is designed to do office work, edit and others so that its features are more complete -As I said before, I can open many apps at the same time. -Because laptop software can store lots of files and are very stable when used	
	Smart phone		45.2%
	The reason?	- It is good to use software on smartphones easier to use because it is easy to install the desired application - I prefer the software on a smartphone, because I think it is more complete. - Easy to install - Smartphone is simpler	

In question 5 about which they're prefer in terms of software, almost 55% of them prefer laptop over smartphone because the software on the laptop is more diverse, the others (45.2%) chose the opposite because it is easy to install the application compare to laptop. Even though it's like that, there are more people choosing laptops than smartphones, at least in this study. Due to the size, components, and power supply restrictions of laptops, they can run more powerful software than smartphones. Although the functions of smartphones are enhanced every year, they still cannot match laptops in terms of performance.

No.	Question	Answers		Percentages
7.	In terms of keyboard, which one do you prefer?	Laptop		57.1%
		The reason?	- Because the distance between the letters is far enough apart so that it reduces the risk of a typo -Faster in typing -Easier to type -In my opinion if doing work such as writing is easier using the laptop's keyboard -Bigger and less typo	

			-In terms of keyboard I prefer to use a keyboard laptops because physical keyboards are easier to use than virtual keyboards that we usually use on smartphones especially mechanical type keyboards besides being good, strong, nice to use, the minimalist design also looks cooler and fresher -All fingers move, not just thumbs.	
		Smart phone		42.9%
		The reason?	- It's easier to type on smartphone because the keyboard is smaller and more efficient in using time typing - Actually I like both but the keyboard on my smartphone has autocorrect so it helps me to type faster - Faster and easier to use -Simpler	

Furthermore in question 5, 57.1% of participants chose laptop over smartphone in term of keyboard. The reasons are because the distance between the letters is far enough apart so that it reduces the risk of a typo and also easier to use moreover in doing writing task. The other (42.9%) chose the opposite because smartphone's keyboard is easy to use and simple, and there's one other reason, it is because the participant's smartphone has autocorrect so it helps his/her to type faster. This percentage indicates that almost all participants prefer laptop more than smartphone in term of keyboard. As for smartphones, they all almost have touch screens and virtual keyboards. However, if you need to type frequently, no smartphone can replace a laptop with its large display and physical keyboard.

CONCLUSION

The results of this paper demonstrate that almost all participants have both laptop and smartphone, however they prefer laptop more than smartphone for online learning. The study also gives an insight into the contrast between laptop and smartphone. From the term of screen size most of the participants chose laptop because laptop has larger size so that they can see images and text more clearly, from the term of battery power most of the participants chose laptop, it's because laptop batteries tend to be more efficient than smartphone and doesn't run out quickly, from the term of storage most of the participants chose laptop, it's because laptop has bigger storage over smartphone, from the term of software most of the participants also chose laptop, that's because software on the laptop is more diverse even though software on smartphone is easy to install, and the last is from the term of keyboard most of the participants chose laptop because physical keyboards are easier to use than virtual keyboards that we usually use on smartphones.

REFERENCES

Abdussamad, S. (2020). Rancang Bangun Inverter Mini 1.5 Vdc to 220 Vac Untuk Lampu Darurat. *Jurnal Teknik*, *18*(1), 7–16. https://doi.org/10.37031/jt.v18i1.65

Adi, R. P., Koswara, Y., Tashika, J., Devi, Y., & Saifudin, A. (2020). Pengujian Black Box

pada Aplikasi Pertokoan Minimarket Menggunakan Metode Equivalence Partitioning. *Jurnal Teknologi Sistem Informasi Dan Aplikasi*, *3*(2), 100. https://doi.org/10.32493/jtsi.v3i2.4695

Ahdan, S., Kaharuddin, A. H. B., & Yusriadi Yusriadi, U. F. (2019). Innovation And Empowerment Of Fishermen Communities In Maros Regency. *International Journal of Scientific and Technology Research*, *8*(12).

Ahmad, I., Samsugi, S., & Irawan, Y. (2022). Penerapan Augmented Reality Pada Anatomi Tubuh Manusia Untuk Mendukung Pembelajaran Titik Titik Bekam Pengobatan Alternatif. *Jurnal Teknoinfo*, *16*(1), 46. https://doi.org/10.33365/jti.v16i1.1521

Aldino, A. A., Hendra, V., & Darwis, D. (2021). Pelatihan Spada Sebagai Optimalisasi Lms Pada Pembelajaran Di Masa Pandemi Covid 19. *Journal of Social Sciences and Technology for Community Service (JSSTCS)*, *2*(2), 72. https://doi.org/10.33365/jsstcs.v2i2.1330

Aldino, A. A., Pratiwi, E. D., Sintaro, S., & Putra, A. D. (2021). Comparison Of Market Basket Analysis To Determine Consumer Purchasing Patterns Using Fp-Growth And Apriori Algorithm. *2021 International Conference on Computer Science, Information Technology, and Electrical Engineering (ICOMITEE)*, 29–34.

Alita, D., Tubagus, I., Rahmanto, Y., Styawati, S., & Nurkholis, A. (2020). Sistem Informasi Geografis Pemetaan Wilayah Kelayakan Tanam Tanaman Jagung Dan Singkong Pada Kabupaten Lampung Selatan. *Journal of Social Sciences and Technology for Community Service (JSSTCS)*, *1*(2).

Aminatun, D., Muliyah, P., & Haryanti, H. (2021). the Effect of Using Dictogloss on Students' Listening Comprehension Achievement. *JURNAL PAJAR (Pendidikan Dan Pengajaran)*, *5*(2), 262–269. https://doi.org/10.33578/pjr.v5i2.8246

Anisa Martadala, D., Redi Susanto, E., & Ahmad, I. (2021). Model Desa Cerdas Dalam Pelayanan Administrasi (Studi Kasus: Desa Kotabaru Barat Kecamatan Martapura Kabupaten Oku Timur). *Jurnal Teknologi Dan Sistem Informasi (JTSI)*, *2*(2), 40–51. http://jim.teknokrat.ac.id/index.php/JTSI

Arpin, R. M. (2020). Skematik Rangkaian Penyearah Setengah Gelombang pada Rangkaian Elektronika Analog. *Dewantara Journal of Technology*, *1*(1), 22–24.

Borman, R. I., Yasin, I., Darma, M. A. P., Ahmad, I., Fernando, Y., & Ambarwari, A. (2020). Pengembangan dan pendampingan sistem informasi pengolahan pendapatan jasa pada PT. DMS Konsultan Bandar Lampung. *Journal of Social Sciences and Technology for Community Service (JSSTCS)*, *1*(2).

Budiman, A, Ahdan, S., & Aziz, M. (2021). Analisis Celah Keamanan Aplikasi Web E-Learning Universitas Abc Dengan Vulnerability Assesment. *Jurnal Komputasi*, *9*(2), 1–10. https://jurnal.fmipa.unila.ac.id/komputasi/article/view/2800

Budiman, Arief, David, I., & Sucipto, A. (2021). *Pemberdayaan Aplikasi Mobile dalam Peningkatan Kegiatan dan Informasi pada Dewan Dakwah Lampung*. *2*(2), 157–168. https://doi.org/10.23960/jpkmt.v2i2.41

Choirunnisa, M. R., & Mandasari, B. (2021). Secondary students' views towards the Use of Google Clasroom as an online assessments tools during Covid-19 pandemic. *Journal of Arts and Education*, *1*(1), 1–9.

Damayanti, D., Sulistiani, H., & Umpu, E. F. G. S. (2021). Analisis dan Perancangan Sistem Informasi Akuntansi Pengelolaan Tabungan Siswa pada SD Ar-Raudah Bandarlampung. *Jurnal Teknologi Dan Informasi*, *11*(1), 40–50. https://doi.org/10.34010/jati.v11i1.3392

Dan, M. S. (2021). *PENERAPAN METODE BIMBINGAN KELOMPOK UNTUK*

Universitas Teknokrat Indonesia , Bandar Lampung , Indonesia Abstrak
PENDAHULUAN Masyarakat modern berkembang dengan cukup pesat mengikuti
perkembangan teknologi . Pendidikan berperan penting dalam mengikuti perke. *10*(4),
2330–2341.

Fahrizqi, E. B., Aguss, R. M., & Yuliandra, R. (2021). PELATIHAN PENANGANAN
CIDERA OLAHRAGA DI SMA NEGERI 1 PRINGSEWU. *Journal of Social
Sciences and Technology for Community Service (JSSTCS)*, *2*(1), 11–14.

Fauzi, F., Antoni, D., & Suwarni, E. (2020). WOMEN ENTREPRENEURSHIP IN THE
DEVELOPING COUNTRY: THE EFFECTS OF FINANCIAL AND DIGITAL
LITERACY ON SMES' GROWTH. *Journal of Governance and Regulation*, *9*(4),
106–115. https://doi.org/10.22495/JGRV9I4ART9

Gunawan D. (2020). *Komparasi Algoritma Support Vector Machine Dan Naïve Bayes
Dengan Algoritma Genetika Pada Analisis Sentimen Calon Gubernur Jabar 2018-
2023*. *V*(1), 135–138. https://doi.org/10.31294/jtk.v4i2

Hendrastuty, N., Ihza, Y., Ring Road Utara, J., & Lor, J. (2021). Rancang Bangun Aplikasi
Monitoring Santri Berbasis Android. *Jdmsi*, *2*(2), 21–34.

Jayadi, A., Susanto, T., & Adhinata, F. D. (2021). Sistem Kendali Proporsional pada Robot
Penghindar Halangan (Avoider) Pioneer P3-DX. *Majalah Ilmiah Teknologi Elektro*,
20(1), 47. https://doi.org/10.24843/mite.2021.v20i01.p05

Juliarti, H., Nugraha, C. D., Sensuse, D. I., & Suryono, R. R. (2021). Internal Social Media
Acceptance in Government Organizations. *2021 International Conference on
Computer Science, Information Technology, and Electrical Engineering (ICOMITEE)*,
133–140.

Karnawan, G., Andryana, S., & Komalasari, R. T. (2020). Implementation of User
Experience Using the Design Thinking Method in Prototype Cleanstic Applications.
Jurnal Teknologi Dan Manajemen Informatika (JTMI), *6*(1), 10–17.

Khan, H. M., & Kainth, H. S. (2019). Spectrum Handoff Decision Schemes and Cognitive
Radio Network. *International Journal of Trend in Scientific Research and
Development*, *Volume-3*(Issue-4), 1003–1005. https://doi.org/10.31142/ijtsrd24034

Lestari, F., Susanto, T., & Kastamto, K. (2021). Pemanenan Air Hujan Sebagai Penyediaan
Air Bersih Pada Era New Normal Di Kelurahan Susunan Baru. *SELAPARANG Jurnal
Pengabdian Masyarakat Berkemajuan*, *4*(2), 427.
https://doi.org/10.31764/jpmb.v4i2.4447

Lina, L. F., & Permatasari, B. (2020). Social Media Capabilities dalam Adopsi MediLina,
L. F., & Permatasari, B. (2020). Social Media Capabilities dalam Adopsi Media
Sosial Guna Meningkatkan Kinerja UMKM. Jembatan. *Jembatan : Jurnal Ilmiah
Manajemen*, *17*(2), 227–238. https://doi.org/10.29259/jmbt.v17i2.12455

Megawaty, D. A., Setiawansyah, S., Alita, D., & Dewi, P. S. (2021). Teknologi dalam
pengelolaan administrasi keuangan komite sekolah untuk meningkatkan transparansi
keuangan. *Riau Journal of Empowerment*, *4*(2), 95–104.
https://doi.org/10.31258/raje.4.2.95-104

Mindayani, S., Yardi, F. R., Putri, A. L., & Fadilla, N. (2021). Efektivitas Aroma Terapi
Lavender terhadap Insomnia pada Lansia. *Jurnal Riset Hesti Medan Akper Kesdam
I/BB Medan*, *6*(1), 63. https://doi.org/10.34008/jurhesti.v6i1.234

Nabila, A. N., Nahdliyah, T., Sensuse, D. I., & Suryono, R. R. (2021). Collaborative
System Implementation for Tourism: A Systematic Literature Review. *2021
International Seminar on Application for Technology of Information and
Communication (ISemantic)*, 255–262.

Nani, D. A., Ahluwalia, L., & Novita, D. (2021). Pengenalan Literasi Keuangan Dan

Personal Branding Di Era Digital Bagi Generasi Z Di Smk Pgri 1 Kedondong. *Journal of Social Sciences and Technology for Community Service (JSSTCS)*, *2*(2), 43. https://doi.org/10.33365/jsstcs.v2i2.1313

Nur, A. (2021). *Pasien Berbasis Mobile (Studi Kasus : Klinik Bersalin Nurhasanah). 2*(2), 1–6.

Nurkholis, A., Damayanti, D., Samsugi, S., Fitratullah, M., Permatasari, B., Widodo, T., & Meilisa, L. (2021). Pelatihan Customer Service Untuk Tenaga Kependidikan Smkn 2 Kalianda. *Journal of Social Sciences and Technology for Community Service (JSSTCS)*, *2*(2), 167–172.

Pratiwi, D., Sinia, R. O., & Fitri, A. (2020). PENINGKATAN PENGETAHUAN MASYARAKAT TERHADAP DRAINASE BERPORUS YANG DIFUNGSIKAN SEBAGAI TEMPAT PERESAPAN AIR HUJAN. *Journal of Social Sciences and Technology for Community Service (JSSTCS)*, *1*(2).

Puspita, D., Nuansa, S., & Mentari, A. T. (2021). Students' Perception toward the Use of Google Site as English Academic Diary. *Community Development Journal : Jurnal Pengabdian Masyarakat*, *2*(2), 494–498. https://doi.org/10.31004/cdj.v2i2.1980

Putri, N. U., Rossi, F., Jayadi, A., Sembiring, J. P., & Maulana, H. (2021). Analysis of Frequency Stability with SCES's type of Virtual Inertia Control for The IEEE 9 Bus System. *2021 International Conference on Computer Science, Information Technology, and Electrical Engineering (ICOMITEE)*, 191–196.

Ramadhanu, P. B., & Priandika, A. T. (2021). Rancang Bangun Web Service Api Aplikasi Sentralisasi Produk Umkm Pada Uptd Plut Kumkm Provinsi Lampung. *Jurnal Teknologi Dan Sistem Informasi (JTSI)*, *2*(1), 59–64. http://jim.teknokrat.ac.id/index.php/JTSI

Risten, R., & Pustika, R. (2021). Exploring students' attitude towards english online learning using Moodle during COVID-19 pandemic at SMK Yadika Bandarlampung [Actitud de los estudiantes hacia el aprendizaje en línea del inglés usando Moodle durante la pandemia de COVID-19]. *Journal of English Language Teaching and Learning*, *2*(1), 8–15. http://jim.teknokrat.ac.id/index.php/english-language-teaching/index

Rossi, F. (2021). DESIGN OF PARKING SLOT INFORMATION USING PROGRAMMABLE LOGIC CONTROLLER. *The 1st International Conference on Advanced Information Technology and Communication (IC-AITC)*.

Rusliyawati, R., Damayanti, D., & Prawira, F. N. (2020). Implementation of SAW Method for Determining SCRM Model as Business Strategy in Higher Education. *International Conference on Information Technology and Business (ICITB)*.

Samsugi, S., Nurkholis, A., Permatasari, B., Candra, A., & Prasetyo, A. B. (2021). Internet of Things Untuk Peningkatan Pengetahuan Teknologi Bagi Siswa. *Journal of Technology and Social for Community Service (JTSCS)*, *2*(2), 174.

Sari, F. M. (2020). UNDERGRADUATE STUDENTS' VIEWS ON THE USE OF ONLINE LEARNING PLATFORM. *THE SECOND INTERNATIONAL CONFERENCE ON ENGLISH EDUCATION*.

Sari, F. M., & Oktaviani, L. (2021). Undergraduate Students' Views on the Use of Online Learning Platform during COVID-19 Pandemic. *Teknosastik*, *19*(1), 41. https://doi.org/10.33365/ts.v19i1.896

Setiawan, M. B., Susanto, T., & Jayadi, A. (2021). PENERAPAN SISTEM KENDALI PID PESAWAT TERBANG TANPA AWAK UNTUK KESETABILAN ROLL, PITCH DAN YAW PADA FIXED WINGS. *The 1st International Conference on Advanced Information Technology and Communication (IC-AITC)*.

Sulistiani, H., Alita, D., Yasin, I., Hamidy, F., & Adriani, D. (2021). Implementation of Certainty Factor Method to Diagnose Diseases in Pineapple Plants. *2021 International Conference on Computer Science, Information Technology, and Electrical Engineering (ICOMITEE)*, 40–45.

Sulistiani, H., Octriana, S., & Adrian, Q. J. (2020). SISTEM PENGENDALIAN INTERN SIMPAN PINJAM ANGGOTA KOPERASI BMT (STUDI KASUS: BMT SYARI'AH MAKMUR). *Journal of Social Sciences and Technology for Community Service (JSSTCS)*, *1*(2).

Susanto, E. R., Budiman, A., Novita, D., Febriyani, A., & Mahendra, A. (2022). *Penerapan website desa kunjir kecamatan raja basa*. *3*(1), 49–54.

Suwarni, E., & Handayani, M. A. (2021). Development of Micro, Small and Medium Enterprises (MSME) to Suwarni, E., & Handayani, M. A. (2021). Development of Micro, Small and Medium Enterprises (MSME) to Strengthen Indonesia's Economic Post COVID-19. Business Management and Strategy, 12(2), 19. h. *Business Management and Strategy*, *12*(2), 19. https://doi.org/10.5296/bms.v12i2.18794

Tanthowi, A. (2021). IMPLEMENTASI SISTEM INFORMASI PEMBAYARAN BERBASIS SMS GATEWAY (Studi Kasus : SMK NEGERI 1 Bandar Lampung). *Jurnal Informatika Dan Rekayasa Perangkat Lunak (JATIKA)*, *2*(2), 188–195. http://jim.teknokrat.ac.id/index.php/informatika

Tinambunan, M., & Sintaro, S. (2021). Aplikasi Restfull Pada Sistem Informasi Geografis Pariwisata Kota Bandar Lampung. *Jurnal Informatika Dan Rekayasa Perangkat Lunak*, *2*(3), 312–323. https://doi.org/10.33365/jatika.v2i3.1230

Yasin, V., Peniarsih, P., Gozali, A., & Junaedi, I. (2022). Application of expert system diagnosis of color blindness with ishihara method with microsoft vb 6.0. *International Journal of Informatics, Economics, Management and Science*, *1*(1), 13. https://doi.org/10.52362/ijiems.v1i1.678

Yunitasari, Y., & Sintaro, S. (2021). *Penggerak Kamera Dengan 2in1 Control (Manual Dan Otomatis) Menggunakan Aplikasi Android*. *02*(02).